

Atty Dkt. No.:10990641-1  
USSN: 09/359,527

### **REMARKS**

In view of the following remarks, the Examiner is requested to allow Claims 2-5, 8-14, 17, 49-52 and 55-57, the only claims pending and under examination in this application following entry of the above amendments.

In the above amendments Claims 2, 5, 8, 10-12, 17, 49-52, 55, and 56 have been amended to clarify the claim language. Support for the amendments can be found throughout the specification and claims as originally filed, see e.g., page 12 lines 24-28 and page 16, lines 10-13. As no new matter is added by way of these amendments, entry of the amendments by the Examiner is respectfully requested.

### ***Claim Rejections – 35 USC § 112, ¶2***

The Office Action states that Claims 2-5, 8-14, 17, 49-52 and 55-57 are rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Office contends that the recitation of "target pattern," "target array pattern," and "actual pattern" render the above cited claims indefinite.

The rejected claims are directed to methods of fabricating an addressable array onto a substrate. A "target drive" pattern determined by a processor in communication with the deposition apparatus drives the deposition of probes onto the substrate in accordance with a "target array" pattern. The pattern that actually results from the probes being deposited on the substrate is an "actual array" pattern. When a discrepancy is detected between the "target array" pattern and the "actual array" pattern, a "corrected drive" pattern is generated, which then drives the deposition of probes onto the substrate. See page 12 lines 24-28 and page 16, lines 10 to 28. Accordingly, the Applicants contend that the claims are clear and definite.

However, solely in order to expedite prosecution and advance the case to issuance, Claims 2, 5, 8, 10-12, 17, 49-52, 55, and 56 have been amended to clarify that it is a

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"corrected" drive pattern that is generated and which drives the further deposition of the probes when an error is generated. Such amendments should not be viewed as an acquiescence by the Applicants to the position of the Office. Accordingly, in view of the above amendments it is respectfully submitted that this rejection may be withdrawn.

***Claim Rejections – 35 USC §103(a)***

Claims 2, 3, 10, 13, 14, 17, 56, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baldeschwieler et al (6,015,880) In view of Weber (4,328,504).

Weber is directed to traditional printing methods and not to methods of fabricating biopolymer arrays.

As will be demonstrated below, when the relevant case law is applied to the facts of the present application, the only reasonable conclusion is that one of skill in the art would not combine the teaching of Baldeschwieler with Weber to arrive at the claimed invention because Weber is non-analogous art to the claimed invention of the present application.

With respect to non-analogous art, the MPEP at § 2141 states:

"In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See also *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992) ("A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem."); \* *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993); and *State Contracting & Eng'g Corp. v. Condotte America, Inc.*, 346 F.3d 1057, 1069, 68 USPQ2d 1481, 1490 (Fed. Cir. 2003) (where the general scope of a reference is outside the pertinent field of endeavor, the reference may be considered analogous art if subject matter disclosed therein is relevant to the particular problem with which the inventor is involved).

The Applicants contend that Weber is not in the same field of the Applicant's endeavor and is not reasonably pertinent to the particular problem with which the inventor of the present claims was concerned. As such, the Applicants respectfully submit that

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Weber is not a proper reference to combine with Baldeschwieler because it is non-analogous art to the field of the present application.

The field of the Applicants' endeavor with respect to the presently claimed invention is related to the fabrication of addressable biopolymer arrays.

In contrast, Weber is directed to depositing ink on paper.

As such the technical field of Weber constitutes non-analogous art to that of the Applicants in the present application.

Furthermore, for the following reasons one of skill in the art would not find Weber to be reasonably pertinent to the problem with which the inventor was concerned. Specifically, the problem that the inventor was concerned in the present application was how to deposit aqueous fluids of biopolymers or precursors thereof onto a surface to produce an array which can be used in biotechnology applications.

In contrast, Weber is concerned with printing ink. Ink is clearly not an aqueous fluid of biopolymers or precursors thereof. As such, Weber is concerned with depositing a completely different type of fluid on a surface for a completely different purpose.

Accordingly, one of skill in the art at the time the present application was filed would not view Weber as being reasonably pertinent to the problem with which the inventor was concerned in the present application, since the problem being solved by the present invention was how to deposit aqueous fluids of biopolymers or precursors thereof onto a surface to produce an array which can be used in biotechnology applications.

Accordingly, because Weber is in a different technical field from the field of the Applicant's endeavor and one of skill in the art would not view Weber as reasonably pertinent to the particular problem with which the inventor of the present application was concerned, under MPEP at § 2141 Weber is non-analogous art to the field of the present invention and therefore not properly useable in a rejection of the claims of the present application.

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Furthermore, even if Weber is properly combinable with Baldeschwieler, one of skill in the art would not do so because there is no motivation to combine the cited references in the manner suggested by the Office.

Baldeschwieler has no appreciation of the problems that may arise from discrepancies between an actual and target array pattern in deposition of biopolymers or precursors thereof onto a surface of a substrate. Therefore, Baldeschwieler provides no motivation to go the extra step of correcting for errors in a deposition process so as to reduce discrepancies between the actual and target pattern, because Baldeschwieler does not appreciate that such discrepancies, if present, would have any effect on the usability of the item being printed.

Further still, even if one used Baldeschwieler's teachings as a guide for producing arrays, one would actually be motivated to not go to the extra step of correcting for errors, because without appreciating the nature and significance of the errors that can occur during array fabrication, the added step of correcting for such errors would add to the cost of manufacturing the array with little recognized benefit. Accordingly, one would not be motivated to combine the teachings of Baldeschwieler with Weber to arrive at the invention of these claims because there would be no need to do so, as the specific problem that is solved by the present invention was not appreciated by the prior art, and the expense of doing so would be high while the expected benefit would be non-existent. Accordingly, because the Office has provided no motivation to combine the cited references and because Baldeschwieler does not address correction methods for use in fabricating biopolymer arrays, there remains no motivation to combine the cited references as suggested by the Office.

Accordingly, Claims 2-5, 8, 10-14, 17, 49, 56 and 57 are not obvious under 35 U.S.C. § 103 (a) over Baldeschwieler in view of Weber and this rejection may be withdrawn.

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***Obviousness Double-Patenting Rejection***

Claims 2, 3, 8, 10, 13, 14, and 59 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 5-12, 25, 29-31, 39-43, and 46 of co-pending Application No. 09/302,898. Accordingly, filed herewith is the requisite terminal disclaimer, in view of which, the Applicant respectfully request this rejection be withdrawn.

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**Conclusion**

The Applicants submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone Dianne Rees at (650) 485-5999.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-1078.

Respectfully submitted,

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Enclosure: Terminal Disclaimer over Application Serial No. 09/302,898

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